

Internet Environment

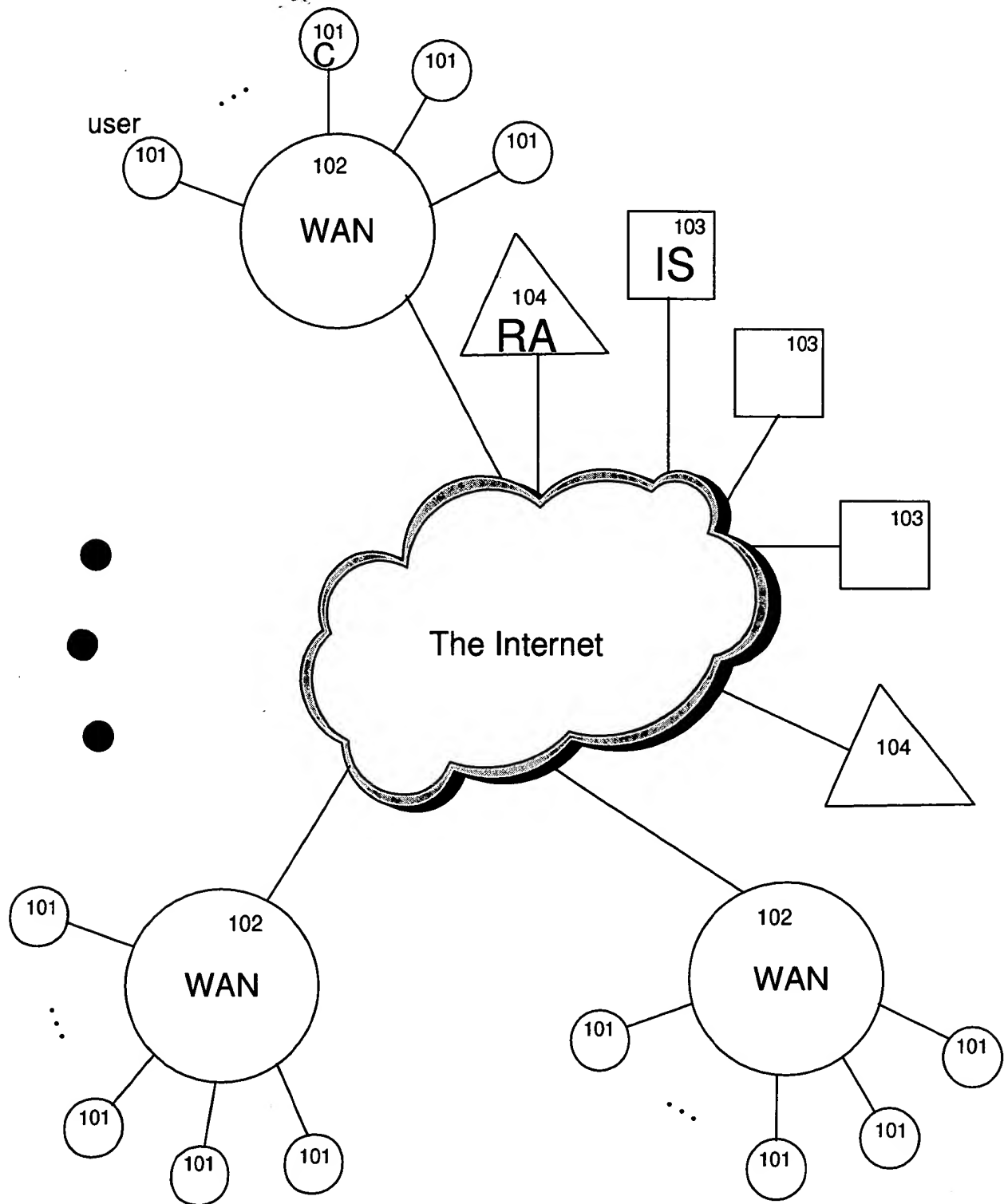


Figure 1

Relationship Analyzer

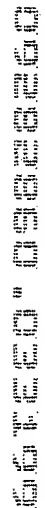


Figure 2

Modify/Filter Query

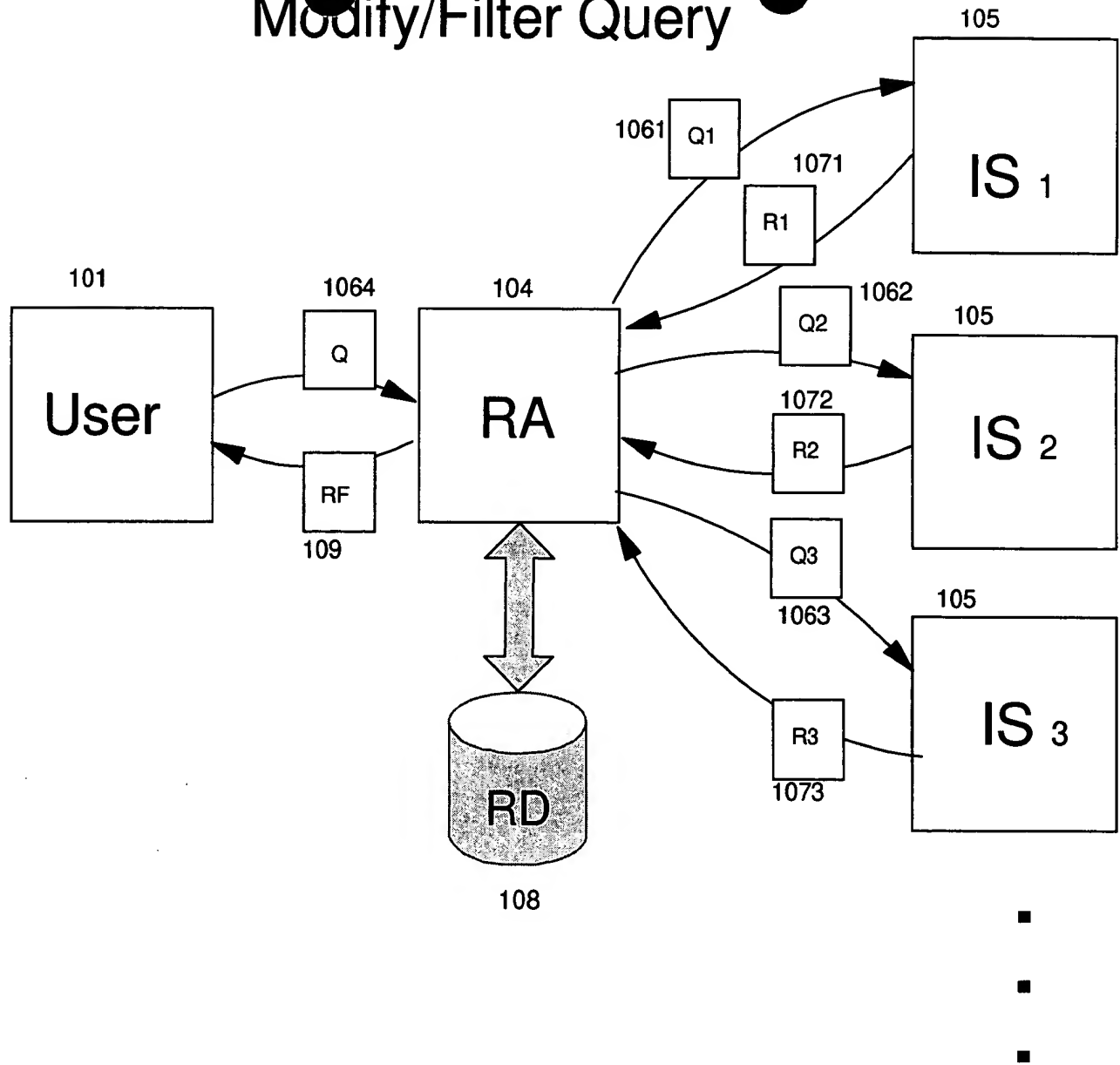


Figure 3

Example - Combine Results

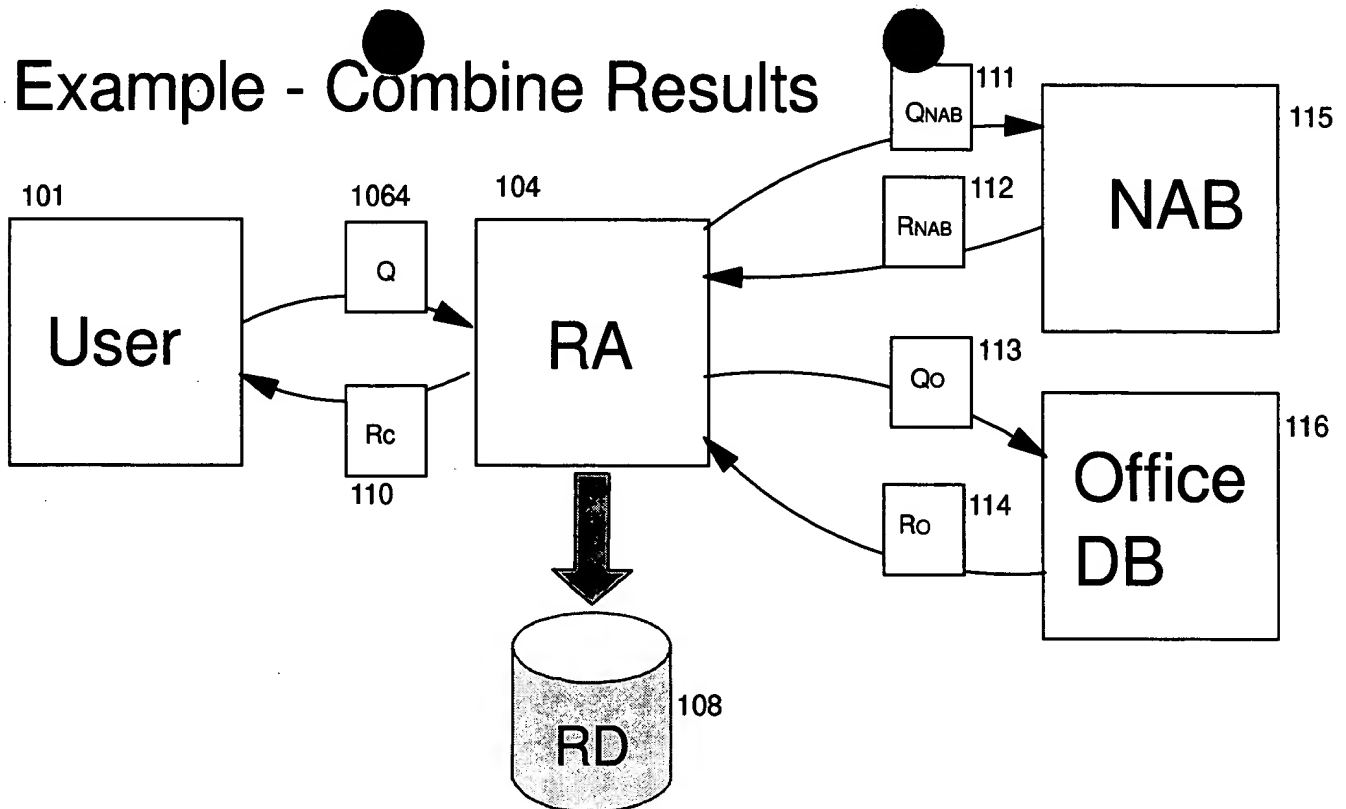


Figure 4A

RNAB - Response from NAB

John Q Smith	John Q Smith/SalesDivision/XYZCorp
John Q Smith	John Q Smith/MktgDivision/XYZCorp

Ro - Response from Office DB

John Q Smith	Florida
John Q Smith	New York

Rc - Combined Response

John Q Smith	John Q Smith/SalesDivision/XYZCorp	Florida
John Q Smith	John Q Smith/MktgDivision/XYZCorp	New York

Figure 4B

Example - Priority-Order Results

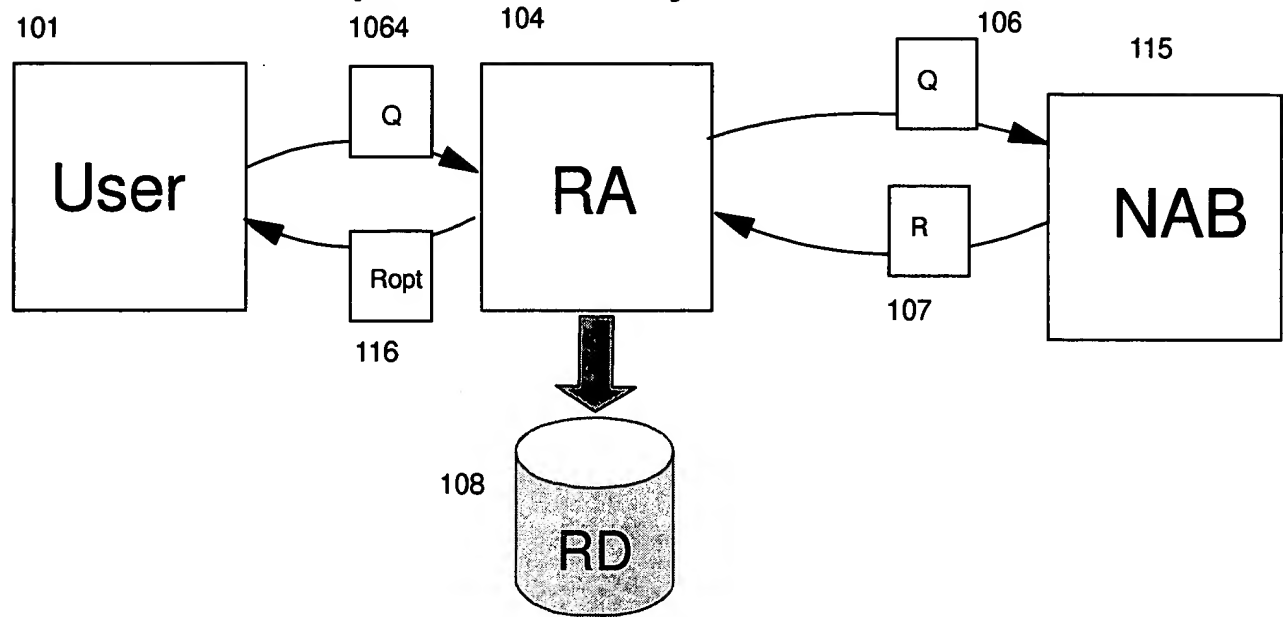


Figure 5A

Query - on behalf of George A Jones/MktgDivision/XYZCorp

e-mail name for **John Smith**? 1064

Response

John Q Smith	John Q Smith/SalesDivision/XYZCorp	107
John P Smith	John P Smith/MktgDivision/XYZCorp	

1080 Relationship Data - for George A Jones/MktgDivision/XYZCorp

John Q Smith/SalesDivision/XYZCorp	10	1081
John P Smith/MktgDivision/XYZCorp	20	1082

Sorted Response

John P Smith	John P Smith/MktgDivision/XYZCorp	116
John Q Smith	John Q Smith/SalesDivision/XYZCorp	

Figure 5B

Figure 6 - Operation of the RA

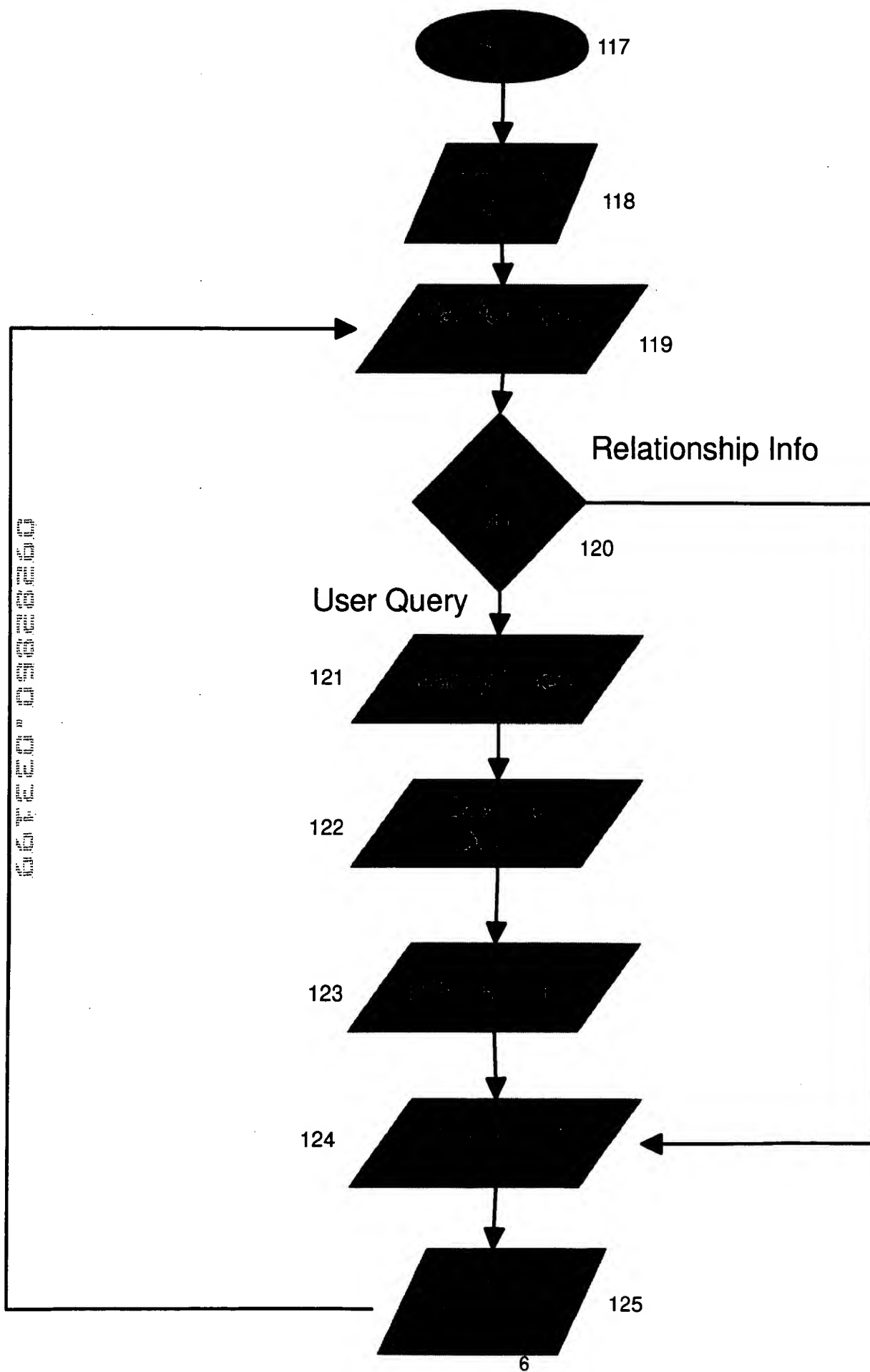
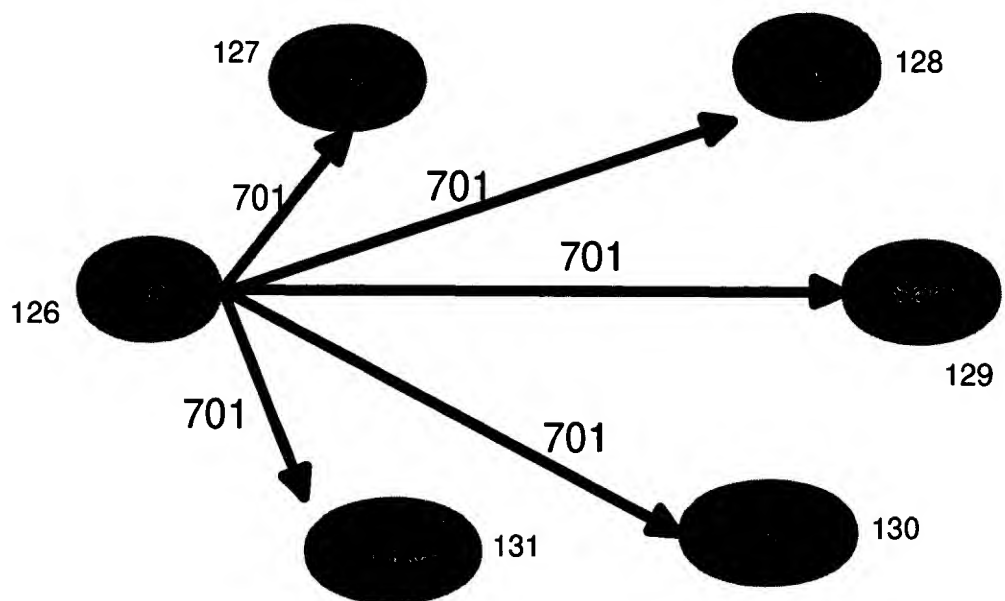


Figure 7A - Sample Relationship Graph



Relationship Values for "Jo" (700)

	<u>Fred</u>	<u>Pat</u>	<u>Sam</u>	<u>Al</u>	<u>Mickey</u>
Ri("Org Chart")	0.8	0.5	0.5	0.1	0.0
Ri("Mailing List")	0.7	0.6	0.2	0.0	0.5
Ri("Calendar")	0.2	0.6	0.6	0.0	0.1
R("Jo") (sum Ri's)	1.7	1.7	1.3	0.1	0.6

Preference ratings for information sources (702):

{ P("Org Chart") = 0.2, P("Mailing List") = 0.5, P("Calendar") = 0.3 }

Weighted Relationship Values (703)

Rp("Jo", (Fred...))	0.57	0.58	0.38	0.02	0.28
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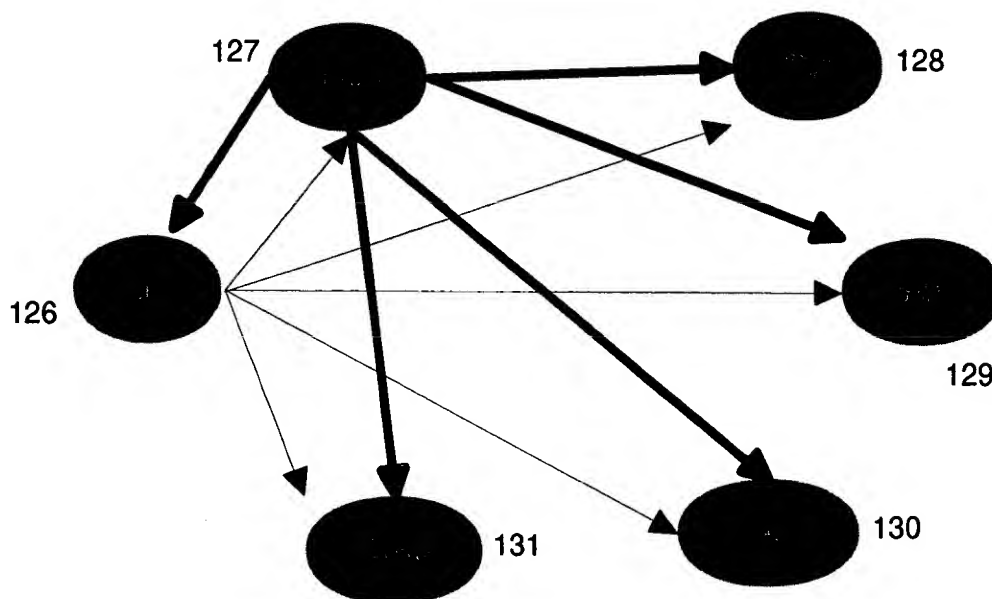
Relation-Group Cutoff (704)

RG cutoff = 0.35

Relation-Groups For "Jo" (705)

RG("Jo") = { Fred, Pat, Sam }

Figure 7B - Sample Derived Relationship Graph



Weighted Relationship Values for Fred (706)

	<u>Pat</u>	<u>Sam</u>	<u>Al</u>	<u>Mickey</u>	<u>Jo</u>
Rp("Fred", y)	0.4	0.6	0.2	0.8	0.6

Derived Relation-Group Cutoff (707)

DRG cutoff = 0.5

Derived Relation-Group For Jo (708)

DRG("Jo") = { Fred, Pat, Sam, Mickey }

Figure 8 - Initialize RD

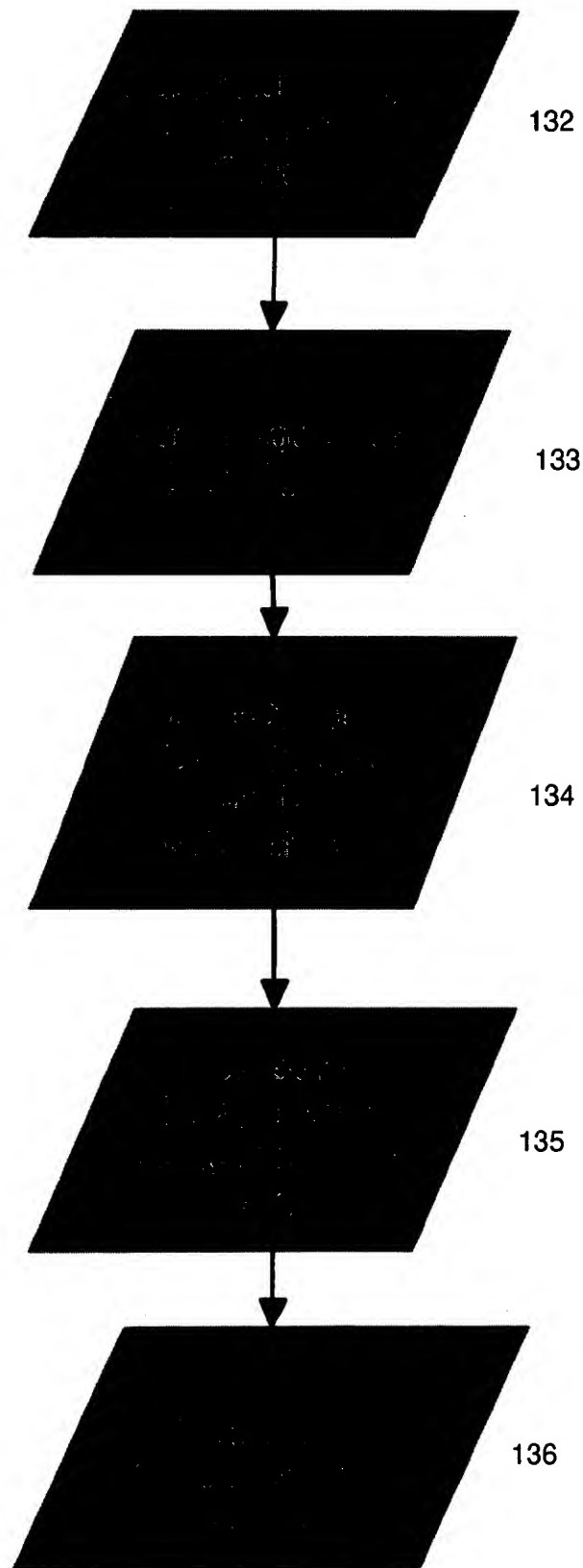


Figure 9 - Compute Relationship Values

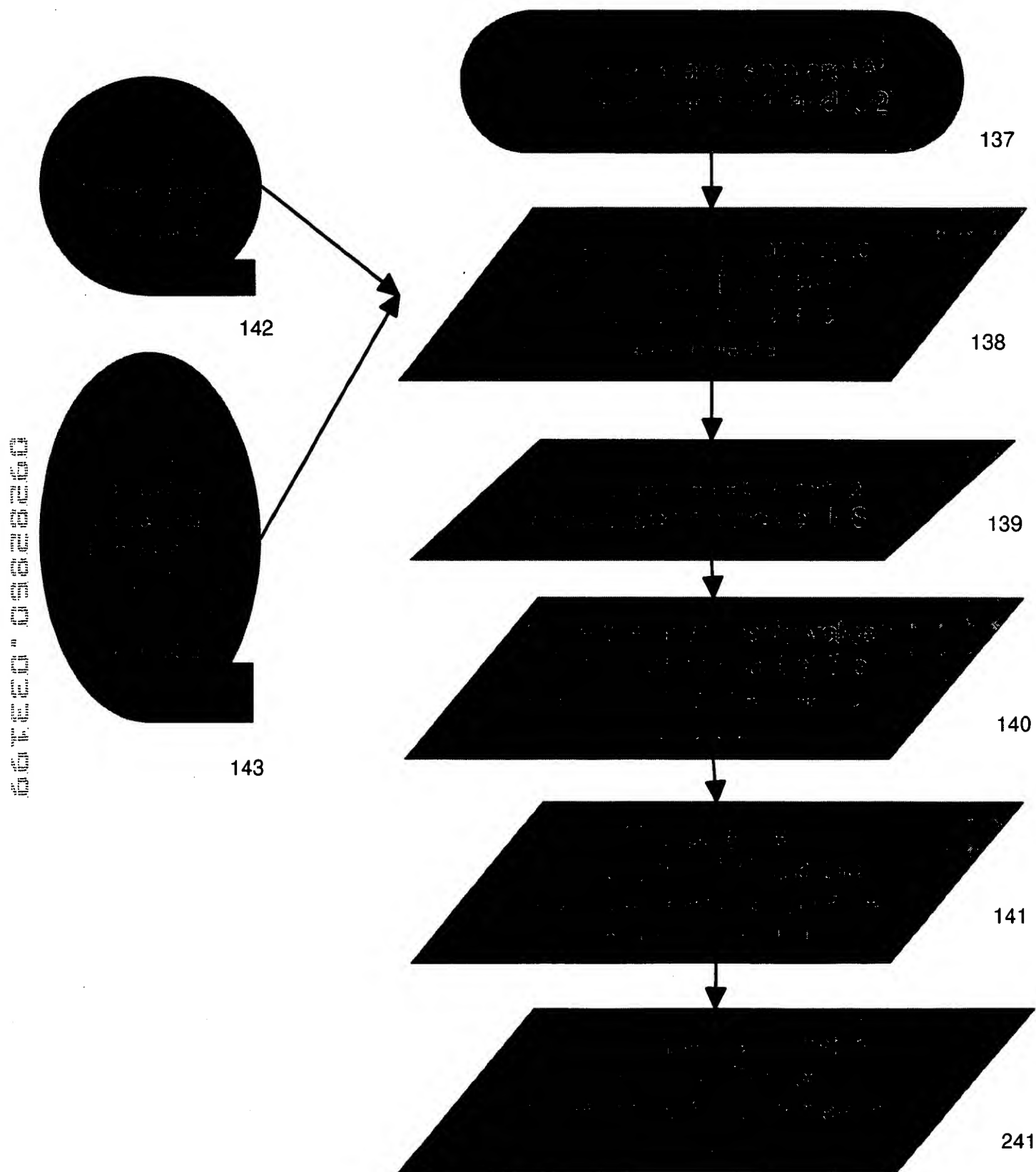


Figure 10 - Modify Query

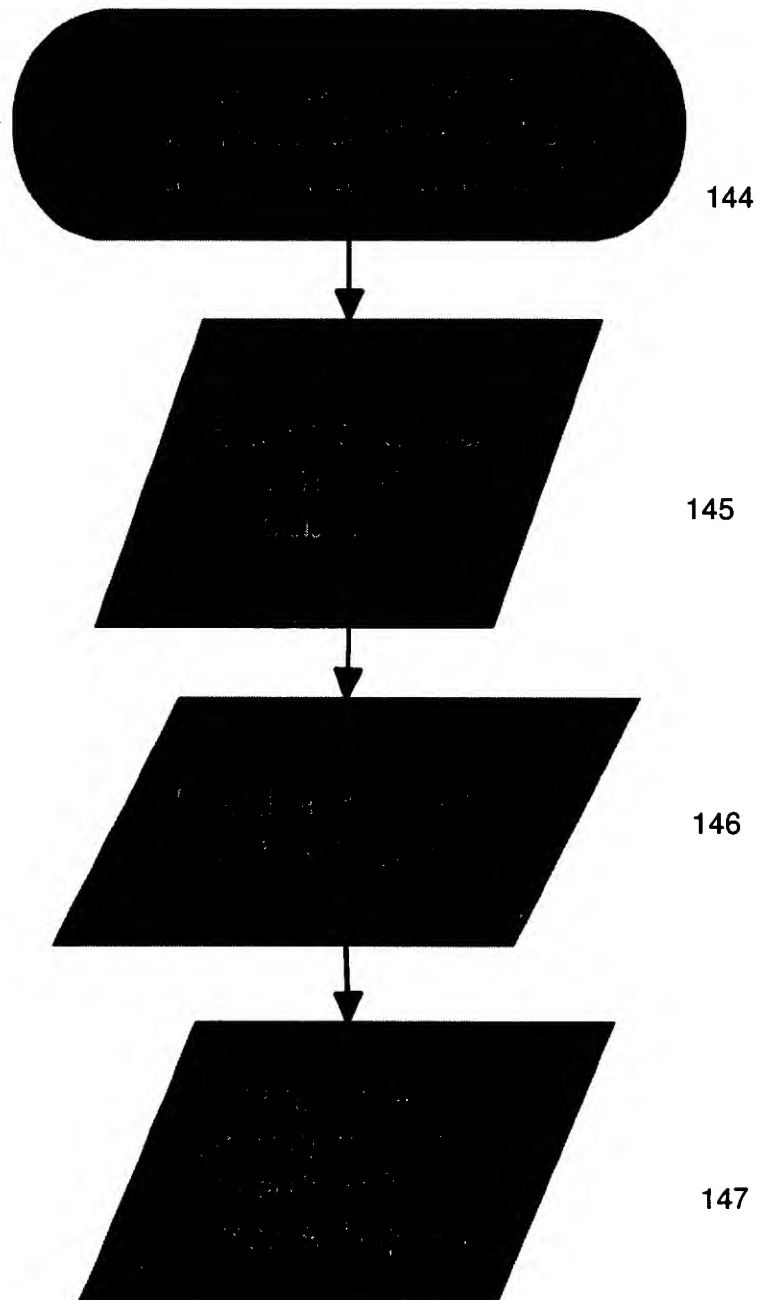


Figure 11 - Execute Query

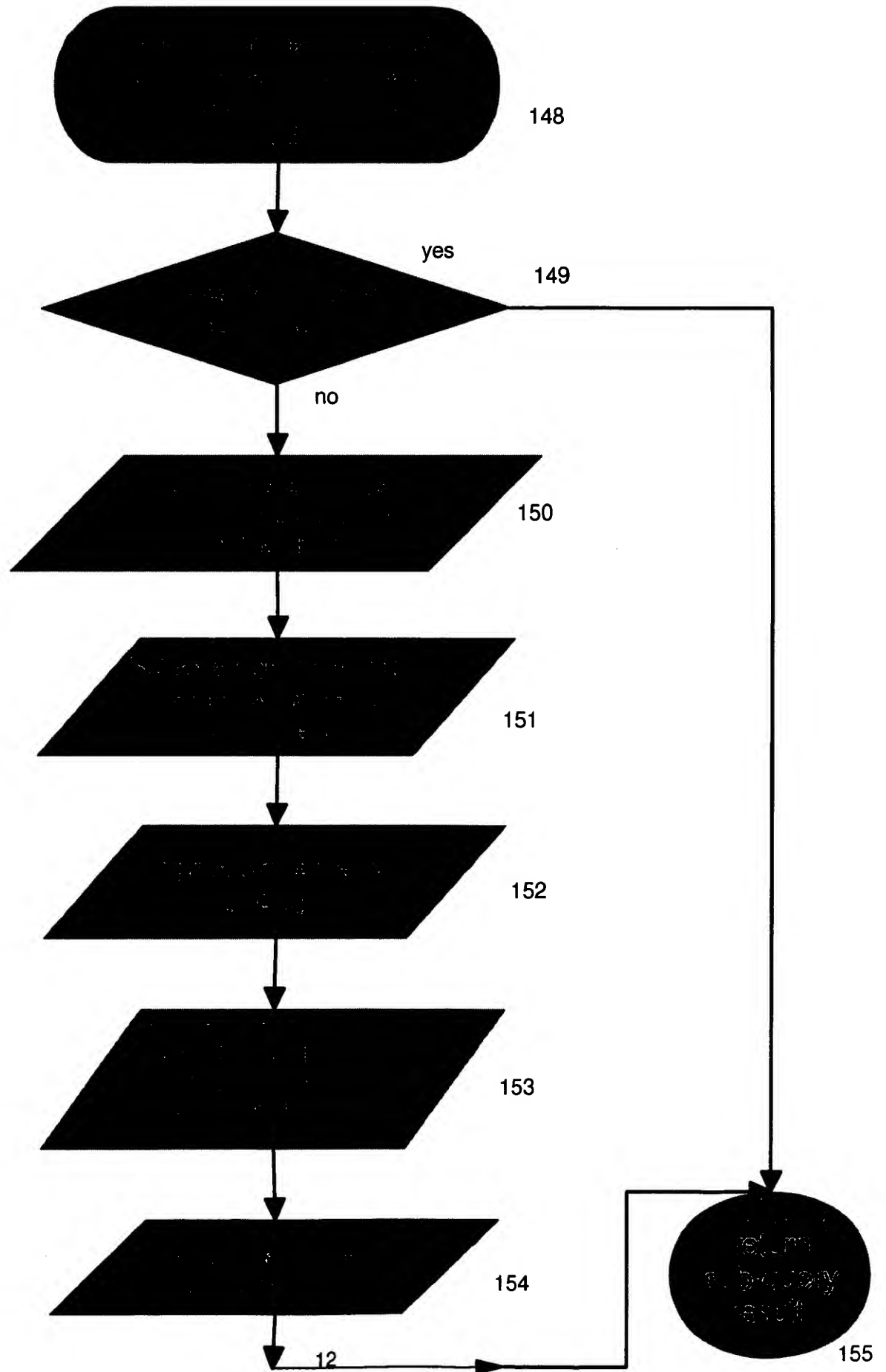


Figure 12 - Filter Results

